

What is claimed is:

- 1 1. A gear drive having at least one continuously variable drive shaft bearing
2 float and preload adjustment system with an integral seal carrier for a bearing
3 assembly on a drive shaft that protrudes from the gear drive that comprises:
4 a threaded housing bore in a housing for the gear drive;
5 a threaded adjustment ring with ring threads that mate the threads in the housing
6 bore and a thrust surface that constrains a bearing assembly for a drive shaft that
7 protrudes from the housing in fixed axial alignment through the adjustment ring to
8 provide adjustable float and preload of the bearing assembly; and
9 at least one shaft seal mating with the drive shaft mounted within the adjustment
10 ring.
- 1 2. The gear drive of Claim 1 wherein the threaded adjustment ring is loosened
2 within the housing bore to increase float of the drive shaft bearing.
- 1 3. The gear drive of Claim 1 wherein the threaded adjustment ring is tightened
2 within the housing bore to increase preload of the drive shaft bearing.
- 1 4. A bearing assembly float and preload adjustment system with an integral
2 seal carrier for a drive shaft that protrudes from a gear drive housing in fixed axial
3 alignment with the housing, comprising:
4 a threaded housing bore in the housing for the gear drive;
5 a threaded adjustment ring with ring threads that mate the threads in the housing
6 bore and a thrust surface that constrains a bearing assembly for the drive shaft to
7 provide a continuously variable float and preload for the drive shaft bearing
8 assembly; and
9 at least one shaft seal mating with the drive shaft mounted within the adjustment
10 ring.

1 5. The bearing assembly of Claim 4 wherein the threaded adjustment ring is
2 loosened within the housing bore to increase float of the drive shaft bearing.

1 6. The bearing assembly of Claim 4 wherein the threaded adjustment ring is
2 tightened within the housing bore to increase preload of the drive shaft bearing.